

ALLAN W. H. BÉ

Aug 55

LEG 4

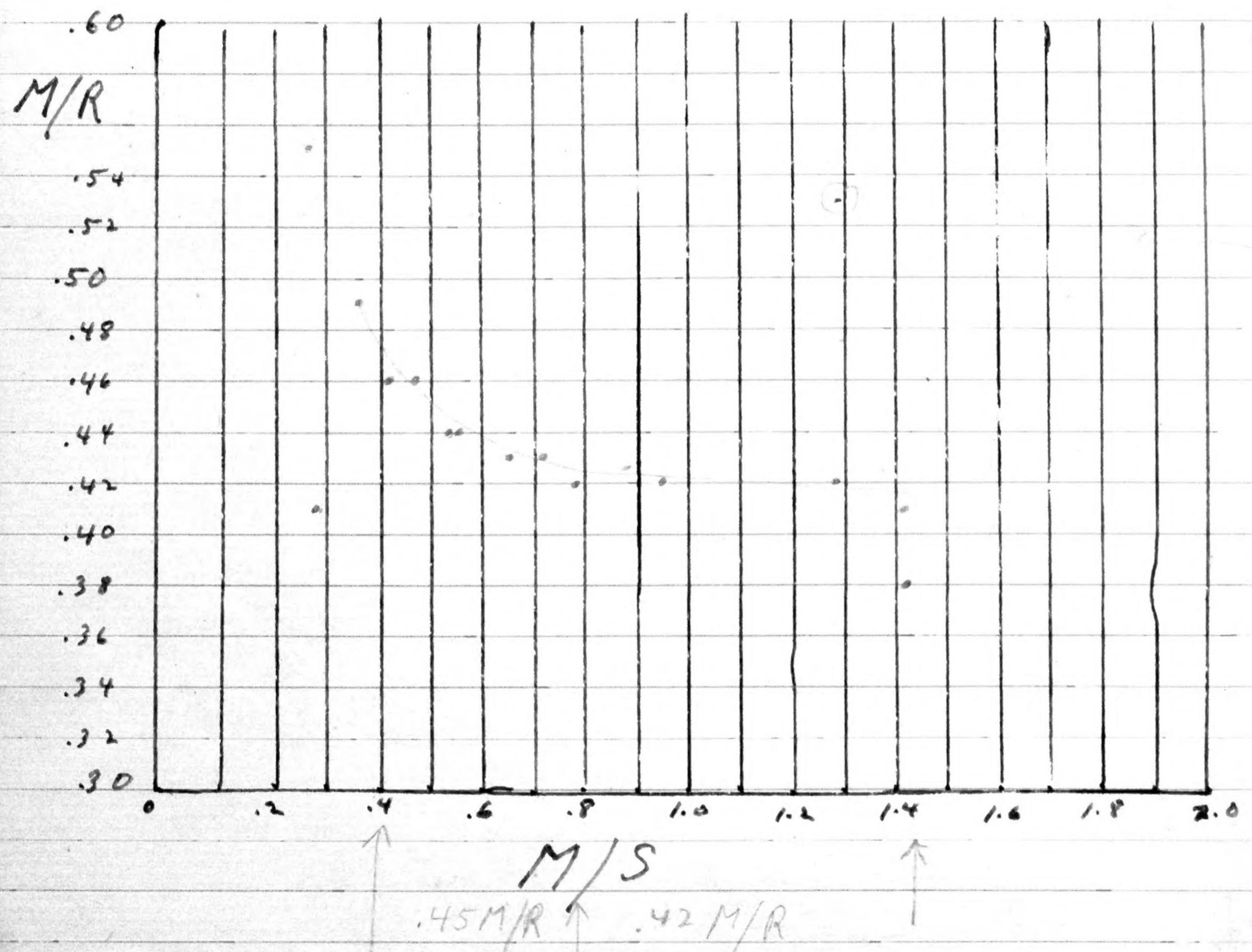
249

Log of Biological Collections
and Observations

R. V. Verna V-7, Leg 4.

Robert Bieri
Lamont Observatory
Palisades, New York

Net calibration Aug. 3, 1955 Cont.



$$\therefore \text{use } .44 \text{ M/R} \pm .02 = \pm 5\%$$

1/2 Min use 1 M³/min.

August 3, 1955

Calibration of Clarke-Bumpus meter

Distance towed = 15.5 yards $\pm \frac{1}{2}$ yard or $\pm 3\%$

| Time Up | Revs. Up | Time Down | Revs. Down |
|---------|--------------------------------|-----------|------------|
| 15 sec. | 34 | 10 sec. | 37 |
| 11 " | 27 (wind may have blown meter) | 18 " | 34 |
| 22 " | 33 | 20 " | 33 |
| 26 " | 32 | 27 " | 32 |
| 30 " | 31 | 40 " | 29 |
| 35 " | 31 | 50 " | 26 |
| 50 " | 25 | 10 " | 35 |
| 11 " | 34 | | |

15.5 yards = 14.2 meters; no significant difference between up and down

Meters / Sec. vs. Meters per Revolution M/S vs. M/R

| | | | |
|------|-----|------|-----|
| .95 | .42 | 1.42 | .38 |
| 1.29 | .53 | .79 | .42 |
| .65 | .43 | .71 | .43 |
| .55 | .44 | .53 | .44 |
| .47 | .46 | .36 | .49 |
| .41 | .46 | .28 | .55 |
| .28 | .41 | 1.42 | .41 |
| 1.29 | .42 | | |

VERTICAL PROFILE 5 Aug 1955

August 5, 1955

1st messenger speed = $\frac{2.5}{2.8}$ meters/sec.

2nd messenger speed = 2.5 meters/sec

both measured at 20° wire angle
on $\frac{1}{2}$ inch diameter wire

Speed: 2 knots

V7-7

Time net open 1255 depth 10 fms Enclosed 1305
at 30 fms at each depth for 10 min = 20 min.
Vol. water filtered between 10-30 fms = $1400 \text{ m}^3 \text{ ton.}$

Displacement vol. of plankton = 24 cc
Wire L = 20°

Lat. Long. Start Lat Long fms

FORAMS

| Species | Specimen | Size in mm |
|-------------------------------|----------|-------------|
| 60 ml. dry of 415 ml. sample. | 0.0 | 0.125 in mm |

| | | |
|-----------------|---|---------|
| Globigerina sp. | 1 | 0.5/mm. |
|-----------------|---|---------|

17 ml. dry volume in 1000 m^3

positioned as V7-1

Calibration of ocular micrometer
in AO scope 336951

$$9x : 4.3 \text{ major divisions} = 4 \text{ mm.}$$

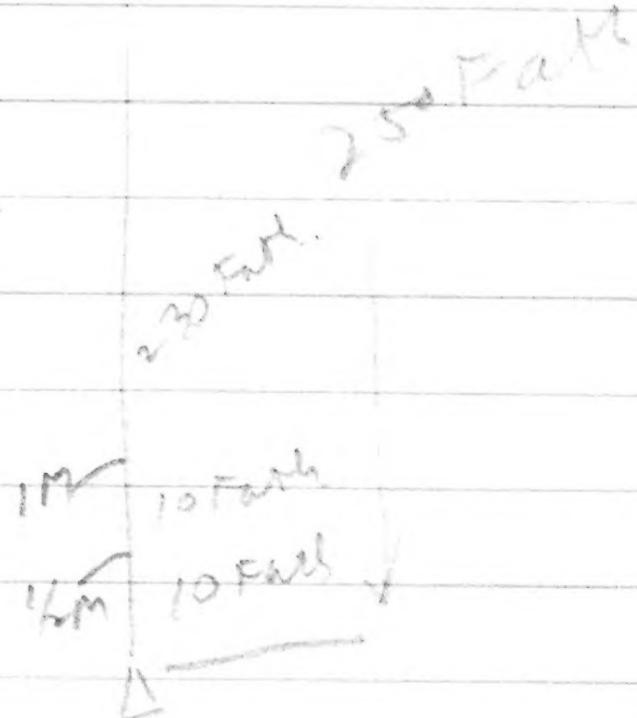
$$27x : 3 \text{ major divisions} = 1 \text{ mm.}$$

$$54x : 6 \text{ major divisions} = 1 \text{ mm.}$$

Dgell & Tora

All time taken on the fly were made in
the following manner:

1% 1/2 lb. net was put on 10 fathoms above the
weight. The boat ran down 2 fathoms above the 1/2 lb.
net. The motor which was geared via the
weight ran for 30 seconds at a total of 250
fathoms of sail was paid out in 3 sec. The
boat was left at light for 2 minutes before
heading in. Speed of decelerated vessel was
constant.



200 meters.

August 5, 1955

Sample V7-7 see 3 pages back
1 M net
Depd 20-60 meters
Time 1205-1305 = 10 min
Wind L 20°
Vol. H2O filtered 700 ml
Displ. vol. = 24 ml.

34 ml displ. vol. in 1000 m^3

position same as V7-1

August 5, 55

V7-8

Time net open: 1313, depth 50 fms 10 min, closed: 1340, = 22 min.
depth 100 fms 10 min

Vol. water filtered 1540 ml
Displ. Vol. plankton = 14 cc
Wind L 40°

| | |
|-------|-------|
| Start | Fwd |
| Lat | Long. |

Lat Long

Lat Long.

10 ml. displ. vol. in 1000 m^3

position same as V7-1

300
600 meters

August 5, 1955

V 7-9

time net open: 1405, depth 150 fms, 10 min, to = 15 min.

300 fms 10 min, closed at 1420 at 300 fms

displ. vol. plankton = 2 cc

wire < 32°

vol. water filtered = 1050 m³

| Start | End | Lat | Long |
|-------|-----|-----|------|
|-------|-----|-----|------|

Lat

Long

Fms

Lat

Long.

2 ml. = displ. vol. in 10³ m³

protein same as V 7-1

$\frac{550}{2}$
1100 meters.

August 5, 1955

V7-10

time open: 1452 at 350 fms, 20 min to
550 fms 20 min, closed 1535 = $\frac{43}{27}$ min.

vol displ. = 25 cc

wave L = 40°

vol water filtered = 3000 ml³

20% living when brought up.

8 ml = displ. vol in 103 ml³

protozoan in V7-1

650₂
300 mds.

August 5, 1953

V7-11

Time open = 1621, at 652 fms, 15 min,
closed 1636 at 650 fms. = 15 min.

wie C = 40°

displ. vol = 200.

Vol. water fit Hall = 1050 M³
14% rising after August 11, 1953.

FORAMS

| spp. | no | ? | size mm. |
|--------------------------------------|----|---|----------|
| <i>globorotalia truncatulinoides</i> | 1 | | 0.25 mm |
| <i>globigerina Eggeri</i> | 1 | | 0.50 mm |

CHAETOGNATHS

Kr. subtilis III in 100% = 3/10³ M³

S. lyria III " 100% = 3/10³ M³

S. macrocephala I in 100% = 1/10³ M³

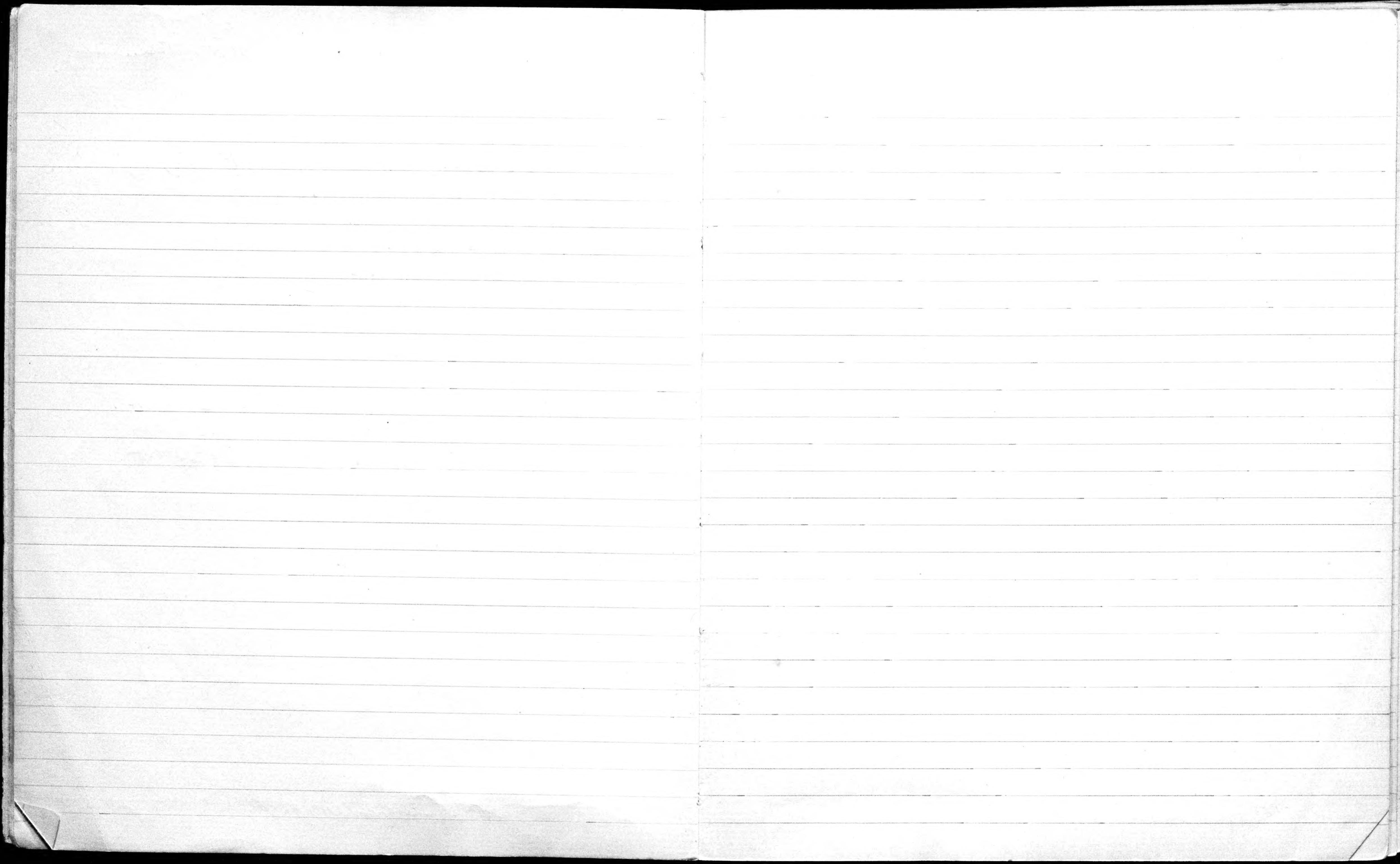
S. sp.?

S. sp.? } 3 in 100% = 3/10³ M³

S. sp.?

2 ml. = displ. vol. of 1000 M³

particular as V7-1



8 August 5, 1955

Sample RV7-1

1M net

Depth 0-25 meter net tow
Time 0048-0055 = 7 min.
Wind 20°
Vol. H₂O fil. = 490 M³
Displ. vol. = 37 ml.

August 5, 1955

Sample RV7-2

14 net

Depth 12-50 M
Time 0140-0146 = 6 min.
Wind 20°
Vol H₂O fil. = 420 M³
Displ. vol. = 2 ml.

$$76 \text{ ml.} = \text{displ. vol.} / 10^3 \text{ M}^3$$

$$5 \text{ ml.} = \text{displ. vol.} / 10^3 \text{ M}^3$$

32-39N, 64-23W

proto. - V7-1

August 5, 1955

Sample RV7-3

1 M. net

Depth

25-50 M

Time

0202-0213 = 11 min.

Wire angle

20°

Vol. H₂O fil. = 770 M³

Displ. vol. = 8 ml.

10 ml. = displ. vol / $10^3 M^3$

net same as V7-1

August 5, 1955

Sample RV7-4

1 M. net

Depth

200-400 M

Time

0220-0245 = 25 min.

Wire angle

22°

Vol. H₂O fil. = 25 / 1750 M³

Displ. vol. = 1 ml.

0.5 ml. = displ. vol / $10^3 M^3$

net on V7-1 same as

August 5, 1955

~~Sample RX7-5~~
~~1 M net~~

Depth 2000-3000 M
Time 0337-0447 (net in 0300 out ?) = 70 min.
Wire L 25°

August 5, 1955

Sample RV7-5
1 M net

Depth
Time
Wire L
Meters

0-320 M (850 m.w.o.)
0617-0650 = 33 min.
40°
at 31322
in 26076
5246

Vol. water filtered = $2300 \text{ M}^3 \times \frac{2300 \text{ M}^3}{33 \text{ min}} = 70 \text{ M}^3/\text{minute}$
Desigl. Vol. sample out of 33 min.

Note: Net fouled around wire due to too rapid descent of net. No sample obtained. Actual amount of wire out was 900-1400 fathoms due to slippage of meter wheel.

Waybreak about 0430

Position number 177-1

August 5, 1955

Sample VR 7-6
 $\frac{1}{2}$ Mnet

Depth 0 -
Time 0911
Vol. H₂O filtered
Dissol. Vol.

See front of log for samples

VR 7-7 - VR 7-11

Vertical tow from bottom to surface on the piston corer.

position same as V 7-1

SERIAL NO. 1554

August 7, 1955

Sample VR 7-12
 $\frac{1}{2}$ m net

Depth 0-300M
Time 1613-16~~27~~36
Wne L 55°, 52°, 50°, 50°
Vol. H₂O filtered
Airl. vol: 8ml cc.

(Sunday)

23 min.

SERIAL NO. 1555

August 8, 1955

Sample VR 7-13
 $\frac{1}{2}$ m net

Depth 0-300M
Time 0649 - 0710 = 21 mins
Wne L 65°@ 0649, 65°@ 0653, 60°@ 0657 (250 fathm. o.;
60°@ 0659, 55°@ 0702, 50°@ 0703, 35°@ 0707.
Vol. H₂O filtered
Airl. vol: 10 ml cc.

60-14w, 34-10N

35-14w, 59-30w

August 8, 1955-

Miscellaneous Notes

We have been in sargasso weed ever since the first station. Usually the clumps are about one foot in diameter and very patchy in their distribution (anywhere from 100 to several hundred yards apart usually). Menzies reported seeing red-billed tropic birds on our first day out. Flying fish common the first 2 days, less common since.

At the first station there were many blue-grey trigger fish four 4-8 inches long swimming about the sargasso weed.

August 8, 1955-

Sample V7-14
1/2 M net

| | | |
|--------|---|---------|
| Depth | 0-300 m | |
| Time | 1822-1853 | 31 min. |
| Wire L | 20°, 1823-40°, 1825-40°, 1835-45°, 1837-40°, 1839-40°, 1846-40°. | |

Vol. H₂O filtered:

Depth vol: 12 ml ac.

35-22N, 58-23W
22 37 D

SERIAL

1557
1.5.

August 9, 1955

Sample V7-15
T₂ M net (BT mesh)

Depth 0-300m

Time 1638-1707 down 1649 = 29 min.

Wind 50°, 55°-1641, 60°-1642, 62°-1644

Vol. H₂O fltrd:

Dry vol: 10 ml

35-07N, 57-39W

SERIAL

NO. 1538

August 9, 1955

Sample V7-16
T₂ M net (BT mesh)

Depth 0-150m

Time 1707-1721 down 1712 = 14 min.

Wind 55°

Vol. H₂O fltrd:

Dry vol: 6 ml cc.

35-11N, 57-36W

SERIAL NO. 1559

August 10, 1955

Sample V7-17
 $\frac{1}{2}$ M net

De Depth 0 - 530 m

T Time 0612 - 0635 down 0625 = 23 min.

W Wind: $55^\circ, 60^\circ, 62^\circ, 60^\circ, 65^\circ$; down $58^\circ, 55^\circ, 55^\circ$

Vol. Hroffleid

De Depth. vol:

August 10, 1955

Sample V7-18
 $\frac{1}{2}$ M net

Depth 0 - 1700 feet

T Time 1345 - 1357 = 12 min.

W Wind $25^\circ, 25^\circ, 45^\circ, 45^\circ, 30^\circ$ - 2 min apart

Vol. Hroffleid

De Depth. vol: 2 M.L

35-28N, 57-50W

35-28N, 57-35W

On August 10, 1955

Obtained two small samples from Clarke-Burrough nets attached to repeating camera^{sta 10}. Both contained small amounts of fossil pteropods as in previous camera sample (camera sta. # 9) and some plankton.

While on station a single trigger fish was seen about 8" long.

We continue to see scattered small clams (1 ft in diam or less) of sargassum.

August 11, 1955

Sample V7-19 a=1 M net; b=2 M net
Y₂ M net

Depth: 0-300 m

Time: 1447 - 1518 = 31 min.

Vol. H₂O filtered:

Wgt. Vol: 16 ml nc.

1 M net

Depth: 0-300 m

Time: 1452 - 1517 = 25 min.

Wgt L: 55, 55, 55, 51, 50, 48, 45, 43, 40, 39 at nose,
40, 40, 42, 47, 52, 53, 57, 60 right

Vol. H₂O filtered:

Wgt. Vol: 77 ml nc. = 1 M net

56-96 w, 36-31 H
45 31 D

SERIAL NO. 1561.

August 12, 1955

Samples V7-20 a+b
1/2 M net

Depth: 0-300 m

Time: 0635-0706 = 31 min.

Vol. H₂O filtered:

Depth. Vol: 12 ml = 300 m / 25 m = 12 ml / 25 m = 0.48 ml/m
1/2 M net

Depth: 0-300 m

Time: 0640-0704 = 24 min.

Wet L: 70, 55, 65, 65; 60 at max; 52, 50, 50, 45, 50.

Vol. H₂O filtered:

Depth. vol: 38 ml = 22 ml / 12 m =

37-55 N, 59-05 W

57

02

SERIAL NO. 1562

August 12, 1955

Samples V7-21 a+b
1/2 M net

Depth: 0-300 m

Time: 1940-2004 = 24 min.

Vol. H₂O filtered:

Depth. Vol: 1 ml = 300 m / 25 m =
11 ml.

1/2 M net

Depth: 0-300 m

Time: 1942-2002 = 20 min.

Wet L: 50, 50, 45, 45, 45, 43, 40 at max 34, 28, 26, 24,
26, 30, 34, 40, 40, 45.

Vol. H₂O filtered:

Depth. vol: 1 ml =

61-10 W, 38-12 N

11

02

SERIAL NO. 1563

August ¹²
1955

Sample V7-22

1/2 m net

Depth: 0-1 meter, drifting on camera station #
Time: 2140-2235 = 55 min.

Drift rate = 1 m/s = 2 m / 10^2 ft^2
3 m/s

August 13, 1955

Got a sample from each C-B net on the
camera at camera station # 12. One net too
very badly & discarded. Sampler consisted of corals, green
sponges, sediment & phytoplankton, one brittle star and
a large pelecypod. One of the photographs shows
& pelecypods very clearly. we took several gastropods &
a deep sea polychaete with a limpet attached to it.

We were all set to make a net tow at 0630
this morning and had the net out over the side when the
captain came out on deck and made us stop. The
weather is fine, lots of flying fish & still some rain squalls.
Yesterday morning the character of the sea changed - more
confused - and the water has been less clear since then.

Menzies reported seeing another *Pharostethus* yesterday.

Camera sta#12: from Roy Renshaw, March 3, 1955

Date: Aug. 12, 1955

Posit: 38-09N, 61-05W

Depth: ~~2250~~ - 1743 - 2520 fath.

Time: 2210 - 2353

side of the mount.

Sample V7-21

Sample V7-21

SERIAL NO. 1564

August 13, 1955

Sample V7-23 add. sample V7-24
1/2 M net

Depth: 0-300 m

Time: 1809-1848 = 39 min.

Vol. H₂O filtered:

Drip. Vol:

1 M net

Depth: 0-300 m

Time: 1813-1846 = 33 min.

Wire L: 1810-15, 30, 32, 35, 37, 40, 45, 45, 49, 50, 54, 55,
69, 50, 60+down, 60, 65, 65, 55, 1832-55,

Vol. H₂O filtered:

Drip. Vol:

63-10W, 38-37N

August 13, 1955

Sample V7-24 (1/2 M samples combined as
fine as one sample + V7-23
1/2 M net

Depth: 0-300 m

Time: 1841-1908 = 27 min.

Vol. H₂O filtered:

Drip. Vol: 10 ml. 37 ml. / 10 ml = 3.0
1 M net

Depth: 0-300 m

Time: 1844-1905 = 21 min.

Wire L: 35, 35, 40, 40, 45, 40, 38, 35, 45, 35+down, 40,
40, 40 Don at 1853 stand up at 1855

V.L. H₂O filtered:

Drip. vol: 40 ml. 26 ml. / 40 ml = 0.65

17-23

SERIAL NO. 1565

August 14, 1955

Sample V7-25
1/2 Mnet

Depth: 0-300 m

Time: 0927-0958 = 31 min.

Vil. H₂O filtered:

Depth. Vol: 8 ml + 10 ml. = 18 ml. / 10³ m³ = 9 ml.

1/4 net

Depth: 0-300 m

Time: 0930-0956 = 26 min.

Wav L: 65-0911, 63, 60, 60, 55, 55, 52, 51, 40, 0943-20,
0944-10, 40, approx 60. Max wave at 0939 m. 40°.
start in at 0943, w. L. 40°.

Vil. H₂O filtered:

Depth. vol: 62 ml. = 33 ml / 10³ m³

39-53N, 64-00W.

5° 63' 57" D
See notes on next page.

August 14, 1955.

For net tow V7-25 the ship's speed was cut at 0922 and ship's speed remained at 1000. A strong current set the nets under the ship during the tow even though the wind and sea were off our starboard beam. The low wave L's given on the opposite page should not be used to determine the depth of the net because they are due to the nets going under the ship. Use 40°.

Just as the ship started to resume her cruising speed, we crossed a front or convergence marked by a slick about 5 feet wide extending as far as we could see on either side of the ship (about 300 yards). In the center of the slick was a solid band of sargassum weed about two feet wide. The edge of the slick were lined with foam. The bearing of the front ran from approximately 45°T to 225°T. The surface temperature on the southeastern side of the slick was 76.5°F, on the northwestern side 75.0°F - a distance of 200 yards between the two observations. A BT was taken just after we crossed the slick to the north.

Presumably the net tow was late to the south of the slick. As the trigger weight was being brought on board, a small clump of sargassum

SERIAL NO. 1566

was sighted at a depth of about 10 meters attached to
the wire as it was reeled in as it came up to the
shore. The BT showed three marked temperature
inversions.

August 14, 1955

Sample V7-26
 $\frac{1}{2}$ M net

Depth : 0-300 m

Temp : $17.54 - 18.19 = 25$ min.

Vol. H₂O filtered:

Depth. vol : 18 ml. - com. fl. 100 ml.

14 net

Depth : 0-300 m

Temp : $17.58 - 18.16 = 18$ min.

Wire L : 1758-50, 1757-55, 1800-60, 1801-60, 1802-55, 1804-55, 1806-55 Max.

depth, 1808-55, 1811-55, 1812-55, 1814-55, 1815-70

Vol. H₂O filtered:

Depth. vol : 7.6 ml. - com. fl. 100 ml.

SERIAL NO. 1567

August 15, 1955

Sample V7-27
 $\frac{1}{2}$ m net

Depth: 0-300M

Time: 0855-0923 = 28 min.

Vol. H₂O filtered:

Expt. vol.: 12 ml. = 4 ml. \times 3 = 12 ml. \times 3 = 36 ml.

1 M net

Depth: 0-300M

Time: 0858-0920 = 22 min.

Ward L: 0858-58, 0902-45, 0904-40, 0906-18, 0908-50, 0911-65, 0913-78

0915-67, 0917-70, 0919-70 max 0907-38 + 0909-55.

Vol. H₂O filtered:

Expt. vol.: 53 ml. = 33 ml. \times 1.07 m³

42-53 62-67 Dan

Water depth about 500 fathoms.

SERIAL NO. 1568

August 15, 1955

Sample V7-28
1/2 m net

Depth: 0-300M

Time: 1740-1806 = 26 min.

Vol. H₂O filtered:

Expt. vol.: 4 ml. \times 3 = 12 ml.

1 M net

Depth: 0-300M

Time: 1742-1804 = 22 min.

Ward L: 1744-55, 1745-53, 1746-59, 1747-59, 1748-54, 1749-59, 1750-54,

1755-59, 1756-60, 1757-60, 1758-69, 1759-62, 1800-62, 1801-61

max. 1752-58 + 1754-58.

Vol. H₂O filtered:

Expt. vol.: 21 ml. \times 1.07 m³

51 0

Water depth 200 fathoms

SERIAL NO. 1569

August 16, 1955

Sample V7-29 warm water fauna
1/2 M net

Depth: 0-300m

Time: 0823-0855 = 32 min.

Vol. Hrd filtered: 32

Diaph. vol: 3 ml. = 10 ml. / 10³ m³ = 8 ml.

1 M net

Depth: 0-300m

Time: 0827-0851 = 24 min.

Wrie L: 0827-55, 0828-57, 0830-55, 0832-50, 0834-50, 0826-52,
0842-50, 0844-47, 0846-45, 0848-48, 0850-52, max. 0838-57
and 0840-52.

Vol. Hrd filtered:

Diaph. vol: 38 ml. = 22 ml. / 10³ m³

SERIAL NO. 1570

August 16, 1955

Sample V7-30
1/2 M net

Depth: 0-300m

Time: 1745-1815 = 30 min.

Vol. Hrd filtered: 18

Diaph. vol: 4 ml. = 12 ml. / 10³ m³

1 M net

Depth: 0-300m

Time: 1754-1812 = 18 min.

Wrie L: 1745-55, 1755-65, 1757-60, 1759-60, 1801-58, 1803-59, 1805-58, 1806-
58, 1807-58, 1808-60, 1809-59, 1810-60, 1811-62, max. 1802-58 & 1804-
58

Vol. Hrd filtered: see note below

Diaph. vol: 12 ml.

X 2 = 18 ml. / 10³ m³

1/2 M trawl broke and net probably did not fish most of time.

August 16, 1955

A yellow warbler flew on board this afternoon and spent about one-half hour on and about the ship. Two jaegers - probably pomarine - followed the ship this afternoon for about a half hour. A smaller, noisy bird also was seen - possibly a petrel. About six jaegers were about the ship yesterday afternoon. Yesterday evening (15th) Monger reported seeing a school of porpoises - about 50 in the school. Three or four came over close to the ship. He said they were blacked and had white bellies but, not sharply limited in the extent (not Dall's porpoise).

August 17, 1955

Sample V7-31
12 m net

Depth: 0-300 fms.
Time: 1751-1820 = 29 min.

Vol. Hg. filtered:

Dsgn. vol: 3 ml. / 10 ml. Hg. = 0.3 ml. / 10 ml. Hg.

1 M net

Depth: 0-300 fms.
Time: 1753-1823 = 30 min.

Wrie L: 1753-50, 1753-50, 1753-50, 1753-49, 1753-48, 1800-46, 1802-48,
1804-45, 1805-45, 1806-45, 1807-44, 1808-42, 1809-38, 1810-36, 1812-35,
1813-36, 1814-37, 1815-38, 1816-37, 1817-40, 1818-41 at max depth
1806-1838

Vol. Hg. filtered:

Dsgn. vol: 66 ml. = 32 ml. / 10 ml. Hg.

Floating Terns sighted

August 18, 1955

Sample V7-32
14 net

Depth: 0-300M

Time: 0854 - ~~0854~~⁰⁹²⁴ = 30 min.

Vol. H2O filtered:

Despl. vol: 12 ml. = 40 ml. per 100 ml. of water

14 net

Depth: 0-300M

Time: 0857 - ~~0857~~⁰⁹¹⁷ = 22 min.

Vol. H2O: 0857-65, 0858-66, 0859-67, 0900-61, 0901-60, 0902-59, 0903-59,
0904-60, 0905-60, 0906-60, 0907-60, 0908-59, 0909-58, 0910-58,
0911-58, 0912-60 Biéri, 0913-59, 0914-59, 0915-55 Menzies, 0916-57
0917-58. non depth at 0909-0911.

Vol. H2O filtered:

Despl. vol: 32 ml. = 20 ml. / 100 ml.

August 18, 1955

Sun came out during the morning not too far the first time in two days. This afternoon we had about two hours of a warm to cool rain.

Crossed from steel grey to blue water between BT# V7-622 + V7-623. at 623 saw a small patch of sargassum weed (1330). Late (1630) passed several more clumps & we brought a board for scanning. The boundary between grey and blue water is broken or intermittent.

During the evening two (next page) about 20 petrels (with white rump) were flying about the stern of the ship.

SERIAL

NO. 1656

August 18, 1955

Sample V7-33
f₂ Mnet

Depth: 0-300M

Time: 1749-1812 = 23 min. ✓

Vol. H₂O filtered: 27 M³

Dryl. vol.: 18 ml. = 67 ml. / 1000 ml.

SERIAL

NO. 1657

August 19, 1955

Sample V7-34
f₂ Mnet

Depth: 0-300M

Time: 0848-0919 = 31 min. ✓

Vol. H₂O filtered:

Dryl. vol.: 10 ml. = 33 ml. / 1000 ml.

107 net

Depth: 0-300M

Time: 1751-1810 = 19 min.

Wrie L: 1757-68, 1752-62, 1753-60, 1754-60, 1755-58, 1756-55, 1757-55,
1758-55, 1759-55, 1800-55, 1801-55, 1802-55, 1803-55, 1804-55, 1805-55,
1806-55, 1807-60, 1808-63, max 1758 + 1800.Vol. H₂O filtered:Dryl. vol.: 64 ml. = 46 ml. / 1000 M³

107 net

Depth: 0-300M

Time: 0850-0917 = 27 min.

Wrie L: 0851-63, 0852-55, 0853-57, 0854-53, 0855-53, 0856-52, 0857-41,
0858-41, 0859-40, 0900-40, 0901-40, 0902-42, 0903-44, 0905-44,
0906-42, 0907-45, 0908-49, 0909-40, 0910-38, 0911-35, 0912-30,
0912₁₂-23, 0913-19, 0914-27, 0915-40, 0915₁₅-56, 0916-64.Vol. H₂O filtered:

(max 0902-44 + 0904-44)

Dryl. vol.: 36 ml. = 19 ml. / 1000 ml.

SERIAL NO. 1573-

August 19, 1955

We are still heading towards the Azores on 110°T. The sky is overcast this morning with a continuous light drizzle. The water appeared steel grey at the morning net tow, but patches of Sargassum were seen occasionally. There was no wind and little sea during the tow; so the captain steered in a circle - could not control the wind angle.

1700 - sighted a flight of flying fish - about 10 fish for first time since leaving the north. Sun has just come out & water is getting much warmer. Sargassum is quite common now.

August 19, 1955

Sample 17-35
1/2 M net

Depth: 0-300M

Time: 1752-1815 = 23 min.

Vol. H₂O filtered:

Weight. vol: 5 ml. - 20 ml. / 100 ml.

1/4 net

Depth: 0-300M

Time: 1754-1812 = 18 min.

Vol. L: 1754-55, 1756-55, 1757-50, 1758-50, 1759-50, 1800-55, 1801-57, 1802-57, 1803-57, 1804-55, 1805-55, 1806-57, 1807-55, 1808-57, 1809-55, 1810-60, 1811-60, 1812-60; max. 1801-1803.

Vol. H₂O filtered:

Weight. vol: 32 ml. = 23 ml.

SERIAL NO. 1574

August 20, 1955

Sample V7-36
1/2 M net

Depth: 0-300 m

Time: 0836-0906 = 30 min.

Vol. H₂O filtered:

Drypl. Vol: 6 ml. = 1.0 ml./m³

1 M net

Depth: 0-300 m

Time: 0838-0904 = 26 min.

Vol L: 0849-50, 0840-35, 0841-38, 0842-39, 0843-35, 0844-26, 0845-37,
0846-38, 0848-36, 0849-35, 0850-33, 0851-32, 0852-32, 0853-32,
0854-35, 0855-31, 0856-30, 0857-29, 0858-30, 0859-30, 0900-34
0903-40, max 0858-0852.

Vol. H₂O filtered: 1.0 ml./m³

Drypl. vol: 43 ml. = 24 ml. = 1.0 m³

40-17 N, 48-54 W D.

SERIAL NO. 1575-

August 20, 1955

Sample V7-37
1/2 M net

Depth: 0-300 m

Time: 1749-1821 = 32 min.

Vol. H₂O filtered: = 35 ml.

Drypl. Vol: 17 ml.

1 M net

Depth: 0-300 m

Time: 1751-1817 = 26 min.

Vol L: 1751-65, 1752-67, 1754-65, 1755-69, 1758-69, 1800-60, 1802-60,
1804-60, 1806-60, 1808-57, 1810-55, 1812-56, 1814-62, 1816-70.
max. 1803-58 + 1805-60.

Vol. H₂O filtered: 1.0 ml./m³

Drypl. vol: 89 ml. = 50 ml. = 1.0 m³

39-17 N, 48-54 W D

This tow was started just as the sun was setting and we
hit the scattering layer as it came up. At 1804 S.L. depth was
140 meters, at 1810-100 m.

SERIAL NO. 1576

August 21, 1955

This morning's net tow was cancelled by the captain who said he was running south to avoid a gale to the north. Said we might be able to make one in the afternoon. The one of the stayside has been hoisted and seems to be steadyizing the ship although it is not shotted in hard enough to keep it full at all times. There is a stiff breeze blowing, but seas are very mild as it is good net tow weather.

Yesterday early in the afternoon we set through several conditions of rough seas and I saw one this morning.

The evening's tow was also cancelled by the Capt. but weather not that bad.

August 22, 1955

Sample V7-38

1/2 M net

Depth: 0-300 m

Time: 0841-0914 = 33 min.

Vt. water filled:

Depth. vol: 10 ml. = 3 ml.

1M net

Depth: 0-300 m

Time: 0844-0911 = 27 min.

Water: 0844-50, 0845-48, 0846-49, 0846.5-33, 0846.5-30, 0846.80-21, 0847-18, 0848-18, 0848.5-22, 0849-27, 0849.5-30, 0850-32, 0850.25-42, 0850.5-47, 0850.75-52, 0851-53, 0852-53, 0854-52, 0855-52, 0856-51, 0857-50, 0858-50, 0859-48, 0900-46, 0901-40, 0902-41, 0902.5-42, 0903-45, 0905-51, 0906-52, 0907-59, 0907.5-69, 0908-63, 0909-67, 0910-72. max. 0856.5-51, 0858.5-49,

Vt. water filled: 1900 ml.

Depth. vol: 33 ml. = 17 ml. / 10³ ml.

34-457; 5 m. 2. 36-41. 50-25 P

SERIAL NO. 1577.

August 22, 1955

Sample U7-39
 $\frac{1}{2}$ M net

Depth: 0-300 m

Time: 1740-1811 = 31 min.

Vol. H₂O filtered: 30 m³

Dipol vol: 10 ml. = 32 ml. / 3.2 m³

1 M net

Depth: 0-300 m

Time: 1743-1809 = 26 min.

Ward L: 1743-69, 1744-64, 1745-64, 1746-65, 1747-62, 1748-60, 1749-62
1750-60, 1752-60, 1753-60, 1755-55, 1758-52, 1759-52, 1800-49
1801-45, 1802-42, 1803-42, 1804-42, 1805-41, 1806-42, 1807-46,
1808-55 most. 1754-56, 1756-53.

Vol. H₂O filtered: 183.14 m³

Dipol vol: 48 ml. = 27 ml. / 3.2 m³

34-12N, 51-22W to 34-17N, 51-23W

August 23, 1955

Sample U7-40
 $\frac{1}{2}$ M net

Depth: 0-300 m

Time: 0846-0917 = 31 min.

Vol. H₂O filtered: 30 m³

Dipol vol: 6 ml. = 16 ml. / 3.2 m³

1 M net

Depth: 0-300 m

Time: 0849-0915 = 26 min.

Ward L: 0849-50, 0850-43, 0851-43, 0852-45, 0853-45, 0853.5-42, 0854-
42, 0853-42, 0856-43, 0857-43, 0858-44, 0854-49, 0900-50, 0901.5-
48, 0902-45, 0902.5-40, 0903.5-37, 0904-38, 0905-31, 0905.5-
28, 0906-28, 0906.5-27, 0907-28, 0908-36, 0908.5-42, 0909-
45, 0909.5-43, 0910-52, 0911-58, 0912-54, 0912.5-61,
0913-65, 0913.5-66, 0914-69, 0914.5-70.

Vol. H₂O filtered: 183.14 m³

Dipol vol: 32 ml. = 16 ml. / 3.2 m³

33-15N, 53-37W, to 33-15.5N, 53-38W D.

SERIAL NO. 1578

August 23, 1953

Sample V7-41
4 m net

Depth: 0-300m

Time: 1745-1808 = 23 min.

Vol. H₂O filtered: 27 M³

Dry vol: 10 ml.

1 m net

Depth: 0-300m

Time: 1746-1805 = 19 min

WNL: 1746-69, 1747-60, 1748-60, 1749-60, 1750-60, 1751-60, 1752-60, 1753-58,
1754-57, 1755-57, 1756-58, 1757-54, 1758.5-57, 1759-62, 1800-61,
1802-62, 1804-64, 1805-64, 1806-65, max. 1754-1756.

Vol. H₂O filtered: 1300 M³

Dry vol: 31 ml.

32°53'N, 53°39'W D

August 24, 1953

Sample V7-42
1 m net

Depth: 0-300m

Time: 0835-0904 = 29 min.

Vol. H₂O filtered: 2" M³

Dry vol: 1 ml.

1 m net

Depth: 0-300m

Time: 0837-0901 = 24 min.

WNL: 0837-70, 0838-68, 0839-65, 0840-60, 0840.5-53, 0841-59, 0842-
43, 0842.5-40, 0843-49, 0844-37, 0844.5-32, 0845-30, 0845.5-
27, 0846-26, 0846.5-27, 0847.5-34, 0848-36, 0848.5-40,
0849.5-44, 0850-45, 0851-46, 0851.5-45, 0852-48, 0853-52,
0853.5-51, 0853-53, 0856-53, 0850.5-53, 0852.5-54, 0852-
56, 0858.5-55, 0859-55, 0859.5-57, 0860-57, max. 0847-3, 0847-

Vol. H₂O filtered: 1600

Dry vol: 22 ml. large (rods, crustaceans, squid + sandworm)
12 ml. small (zooplankton)

32°53'N, 53°39'W D

SERIAL NO: 1579

August 24, 1955

Sample V7-43
1/2 M net

Depth: 0-300 m

Time: 1752-1828 = 36 min.

Vol. H₂O filtered: 37 M³

Drygt. vol: 12 ml small sz.

26 ml dry = salps, 1 euphydore, + 1 squid

1 M net

Depth: 0-300 m

Time: 1756-1824 = 28 min.

Wheell: 1756-65, 1758-65, 1800-65, 1802-67, 1804-67, 1806-65, 1807-61,
1808-57, 1809-57, 1811-58, 1814-60, 1816-60, 1818-63, 1820-63,
max. 1808-58, 1810-58.

Vol. H₂O filtered: 2100

Drygt. vol: 10 ml. large sz. (salps, 1 euphydore, + 1 squid).
55 ml. small sz.

32-20 N, 67-38 W

Net was open below the surface, did not close at surface
when hauled up.

August 25, 1955

Sample V7-44
1/2 M net

Depth: 0-300 m

Time: 0845-0923 = 38 min.

Vol. H₂O filtered: 38 M³

Drygt. vol: 6 ml (large Ceranaria not included).

1 M net

Depth: 0-300 m

Time: 0851-0918 (2nd mgn.) 27 min.

Wheell: 0853-50, 0854-50, 0855-50, 0858-49, 0859-49, 0859-50,
0900-48, 0902-47, 0903-45, 0905-43, 0907-42, 0908-41, 0908.5-40,
0909-42, 0910-41, 0911-41, 0912-42, 0913-41, 0914-44, 0915-45,
0916-47, 0917 1/2-46. max. 0904-44, 0906-41.

Vol. H₂O filtered: 1800

Drygt. vol: 32 ml. small sz.
10 ml. dry sz. (salps + squid).

32-20 N, 67-38 W

Steaming in a straight line. 2nd mgn. release went off
at surface when 1st mgn. was set down. Net was hauled in and
reset so as to simulate correct operation of 1st mgn. 2nd mgn.
closed net at. at edge too (below the surface).

August 25, 1955

Noted the first red-billed tropic bird at sea
in some days (since last noted in this log) this
afternoon at 12:15.

August 25, 1955

Sample V7-45
12 m net
Depth: 0-300m
Temp: 1756-1835 = 39
Vol. H2O filtered: 39 M³
Displ. Vol.: 10 mL

14 net

Depth: 0-300m
Temp: 1802-¹⁸³⁰~~1830~~ did not open but to fish balls. 28
Wind C: 1802-50, 1804-50, 1805-50, 1806-53, 1807-55, 1808-55, 1811-53,
1814-50, 1815-50, 1817-50, 1818-53, 1819-54, 1820-53, 1821-54, 1821-55,
1822-53, 1824-53, 1825-55, 1826-50, 1828-57. max 18^{1/2} - 1814.
Vol. H2O filtered: 1900 M³
Depth vol: 38m

at start wind L to great and net did not open first
magn. Net hauled back up and triggered to simulate correct 1st.
magn. operation. Net then set down

B2 in case of 1/46

SERIAL NO. 1580

August 26, 1955

Sample V7-46
1/2 M net

Depth: 0-300m

Time: 0200-0249 = 49 min

Vol. H₂O filtered: 49 M³

Dip. vol.: 12 MIL

Depth: 0-300m
1 M net

Depth: 0-300m

Time: 0208-0242 = 34 min.

Water: 0211-27, 0211.5-28, 0212-32, 0212.5-35, 0212-39, 0213.5-43, 0214-47, 0214-44, 0214.5-46, 0215-47, 0215.5-53, 0216-51, 0217-54, 0217-55, 0219-56, 0220-58, 0221-59, 0222-69, 0223-57 max depth, 0224-59, 0225-57, 0226-58, 0227-58, 0228-55, 0229-55, 0230-55, 0231-56, 0232-56, 0233-56, 0234-58, 0235-57, 0236-54, 0237-52, 0238-52, 0239-53, 0240-52, 0241-58, max 0222+0224

Stopped 0233 to 0237 because wire too close & shags.

Vol H₂O filtered: 2300

Dip. Vol: 48ML

SERIAL NO. 1581

August 26, 1955

Sample V7-47
1/2 M net

Depth: 250-500 feet water at. Max Depth = 450m.

Time: approx 0250-0315 = 8.5 min.

Vol. H₂O filtered:

Dip. vol: 5ML

1 M net

net lost due to weak spring or broken pin or release.

Water: 0234-59, 0258-53, 0259-48, 0300-44, 0301-40, 0305-37, 0302-32, 0302.5-27, 0303-22, 0304-20, 0304.5-24, 0305-24, 0306-38, 0306.5-44, 0307-47, 0308-45, 0309-43, 0309-46, 0310-42, 0313-45, 0314-43, 0314-38, 0315-30, 0315-26, 0315-22, 0316-19, 0316-22, 0317-30, 0317-35, 0318-39, 0319-40, 0320-42, 0321-41, 0322-38, 0322.5-35, 0323-38, 0323.5-24, 0324-18, ~~under water~~, 0324.5-09, 0325-08, 0325.5-24, 0327-45, 0329-50, 0330-40, 0331-30, 0332-25, 0333-22, 0333.5-30, 0334-38, 0334.5-43, 0334.75-48, 0335-51, 0335.25-55, 0335.5-57, 0336-62, 0337-65, 0337.25-64, 0337.5-71, 0338-72, 0339-71, 0340-71, 0340.5-72, 0341-74, 0341.5-73, 0342.5-69, 0343-68, 0344-65, 0345-62, 0345.5-61, 0346-58, 0347-59, 0347.5-58, 0348-57, 0349-53, 0350-53, 0351-53, 0352-52, 0354-49, 0355-47, started from 350 feet out at 0359. 0358-50, 0357-47, 0358-46, 0359-46, 0400-45, 0401-48, 0403-41, 0404-40, 0405-40, 0406-40, 0407-42, 0408-41, 0409-44, 0410-45, 0411-47, 0412-44, 0412-50, 0413-50, 0414-52, 0415-47, 0416-46, 0417-43, 0418-40 max at 0326 w/19, left max. 0328-46, reached 250 feet at 0442 stated back down at 0344, reached 350 feet out at 0351.

August 26, 1955

During the deep BT cast three sharks circled about the ship for over an hour. All appeared to be the same species - one about 8 feet long was hooked and hauled half-way onto the deck ~~by~~ by Craigie and myself before the line was cut by the shark's teeth. The other two were smaller - about 5 feet. One had 3 pilot fish, one had 2 and one had one.

The one with 2 pilot fish also had a small Remora attached to the dorsal side of the left pectoral fin. All the sharks had white tipped dorsal and pectoral fins and a black spot ~~at~~ ^{on} dorsal. dorsal absent on the caudal peduncle. They were very heavy through the head region.

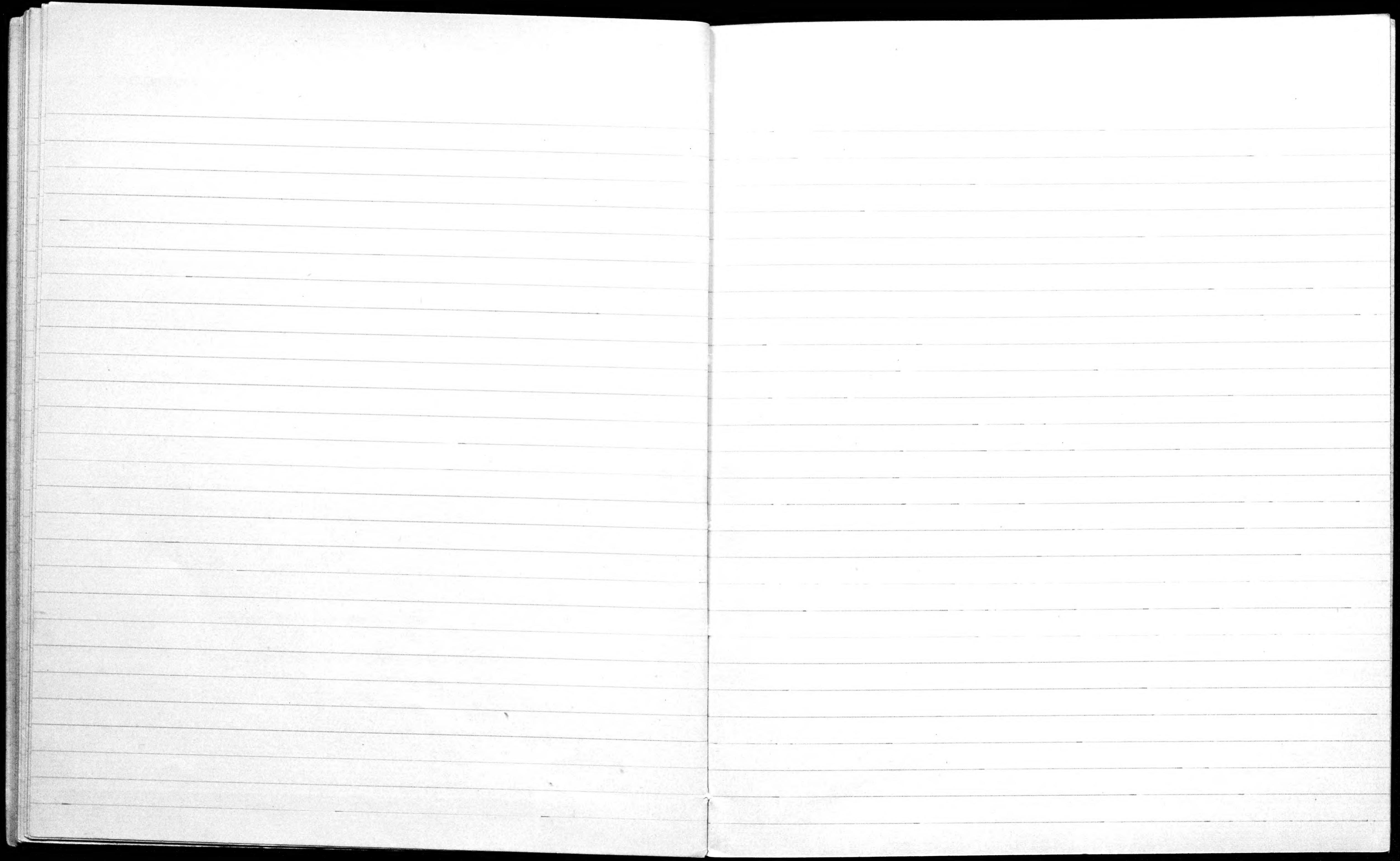
August 26, 1955

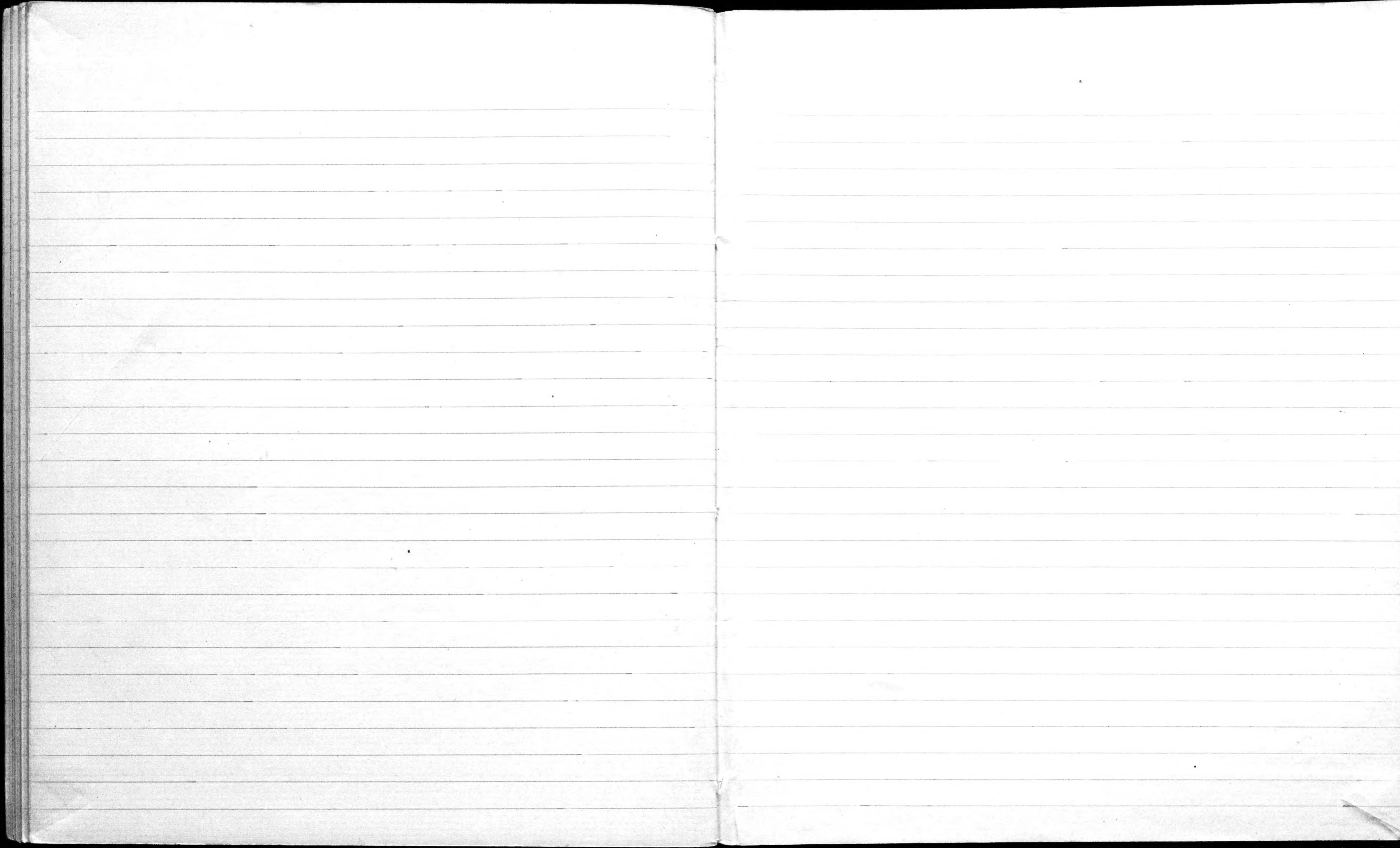
Sacrifice Party of V7.

Edward T. Miller
Julius Kirshman
Nicolai Pukatch
Charles Pershan
John Frazee
Kerry O'neal (Red)
George H. Johnson
David Craigie
Peter Buckenger
Donald Gibbon
Daniel R. Jones (Denz)
Marcus G. Langseth
Manis Talavasi
Robert J. Mangan
Robert Biasi

Crew

Lamont Brackx ~~Mosha~~
Anno Ch 1st mate
Paul H. Simonian Rad. Opn.
Simon Potvin; Boats
Ernest McCaldon Bait & S.
Charles Foster - celto-Harvard sopr.





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